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| 09/476,463      | 12/30/1999  | TZU-CHIEH CHANG      | 1999-021            | 7883             |

7590 09/12/2003

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| EXAMINER |
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KIM, JUNG W

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| ART UNIT | PAPER NUMBER |
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2132

DATE MAILED: 09/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/476,463

Applicant(s)

CHANG ET AL.

Examiner

Jung W Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on May 4, 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: .

## DETAILED ACTION

### *Specification*

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-7, 9-17, 19, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Katta U.S. Patent No. 5,377,266 (hereinafter Katta). As per claim 11, Katta discloses an apparatus that protects a data transmission using a plurality of standard code books where each of the code books encodes a standard portion of the data transmission, comprising:

a) a scrambler that scrambles at least one of codes among the code books or a correspondence between the code books and portions of the data transmission (see Katta, claims 1, 2, and 7; Figure 8, Reference no. 13 and related text);

b) an encoder coupled to the scrambler that encodes data based on scrambled at least one of codes or code books (see Katta, Figure 8, Reference no. 12 and related text); and

c) a transmitter that transmits encoded data (see Katta, Figure 8, 'output').

The aforementioned covers all of claim 11.

4. As per claim 12, Katta covers an apparatus that protects data transmissions as outlined above in the claim 11 rejection under 35 U.S.C. 102(b). In addition, Katta discloses that the scrambler scrambles standard codes so that a decoder of the standard codes may one of successfully decode the encoded data or cannot successfully decode the encoded data (see Katta, col. 2, lines 45-55).

5. As per claim 13, Katta covers an apparatus that protects data transmissions as outlined above in the claim 11 rejection under 35 U.S.C. 102(b). In addition, Katta discloses that the scrambler scrambles based on scrambling information and the scrambling information is transmitted with the encoded data (see Katta, col. 7, line 54-col. 8, line 14; col. 8, lines 21-41).

6. As per claim 14, Katta covers an apparatus that protects data transmissions as outlined above in the claim 11 rejection under 35 U.S.C. 102(b). In addition, Katta discloses that the standard code books are Huffman code books (see Katta, co. 6, lines 46-48; col. 7, lines 27-28).

7. As per claim 15, Katta covers an apparatus that protects data transmission as outlined above in the claim 13 rejection under 35 U.S.C. 102(b). In addition, Katta

discloses that the scrambling information is based on one or more of a fixed table or an algorithm (see Katta, col. 7, line 67-col. 8, line 3; Figure 8, reference no. 14; col. 11, lines 1-5).

8. As per claim 16, Katta covers an apparatus that protects data transmissions as outlined above in the claim 15 rejection under 35 U.S.C. 102(b). In addition, Katta discloses that the algorithm is initialized with an initial value (see Katta, col. 8, lines 1-3).

9. As per claim 17, Katta covers an apparatus that protects data transmission as outlined above in the claim 16 rejection under 35 U.S.C. 102(b). In addition, Katta discloses that one or more of the fixed table, an identification of the algorithm or the initial value is agreed upon between a transmitter and one or more intended receivers prior to transmission of the encoded data or transmitted with the encoded data (see Katta, col. 8, lines 33-42).

10. As per claim 19, Katta covers an apparatus that protects data transmissions as outlined above in the claim 17 rejection under 35 U.S.C. 102(b). In addition, Katta discloses that the transmitted data includes in-stream data that indicates a change of code book or code scrambling (see Katta, claim 1 parameter ii, claim 2, parameter ii).

11. As per claim 20, Katta covers an apparatus that protects data transmissions as outlined above in the claim 11 rejection under 35 U.S.C. 102(b). In addition, Katta

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discloses that the standard codes are Huffman code books (see Katta, co. 6, lines 46-48; col. 7, lines 27-28).

12. As per claims 1-7, 9, and 10, they are method claims corresponding to claims 11-17, 19, and 20 and they do not teach or define above the information claimed in claims 11-17, 19, and 20. Therefore, claims 1-7, 9, and 10 are rejected as being anticipated by Katta for the same reasons set forth in the rejections of claims 11-17, 19, and 20.

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katta in view of Schneier. As per claim 18, Katta covers an apparatus that protects data transmissions as outlined above in the claim 17 rejection under 35 U.S.C. 102(b). Katta is silent on the matter of encrypting the initial value (key seed for the algorithm) prior to transmission. However, encrypting keys for the purpose of secure key exchange is a conventional practice. Schneier discloses several well known protocols to implement secure key exchange (see Schneier, page 47-52). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to encrypt the initial value prior to transmission. The motivation for encrypting the initial value would be to

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mask the seed value of the algorithm and hence maintain the privacy of the transmitted data.

15. As per claim 8, it is a method claim corresponding to claim 18 and it does not teach or define above the information claimed in claim 18. Therefore, claim 8 is rejected under Katta in view of Schneier for the same reasons set forth in the rejection of claim 8.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nohda U.S. Patent No. 6,215,875 discloses a cipher processing system.

Crandall U.S. Patent No. 6,154,542 discloses a method and apparatus for simultaneously encrypting and decrypting data.

Barbir U.S. Patent No. 6,122,379 discloses a method and apparatus for performing simultaneous data compression and encryption.

Katta et al. U.S. Patent No. 5,706,346 discloses a scrambling apparatus and descrambling apparatus having one of several possible processing units.

Katta et al. U.S. Patent No. 5,636,279 discloses a scrambling apparatus and descrambling apparatus.

Katta et al. U.S. Patent No. 5,515,437 discloses a scramble transmission apparatus and signal processing apparatus.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung W Kim whose telephone number is (703) 305-8289. The examiner can normally be reached on M-F 9:00 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (703) 305-1830. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



Jung W Kim  
Examiner  
Art Unit 2132

Jk  
September 4, 2003

GILBERTO BARRÓN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100